

# **PECTRUM**

## **THE APPLICATION OF A PATENT**

**IOAN LUSCHNIK  
HOHENSTEINERSTR. 13  
D -63667-NIDDA  
GERMANY**

# PLECTRUM

## 5 Description

The invention consists of a plectrum for striking strings.

10 Plectrums of the type addressed here are known. They can be out of striking rods or small flat pieces of material consisting of wood, ivory, plastic, metal or similar items and made with a pointed leaf-like shape. The plectrum can be held between two fingers and move over one or several strings, so that these are plucked or struck so that they sound. The production of a multiple sound when striking several strings is possible so that several notes can be sounded at the same time. The strings can also be struck with a faster rate of repetition, to produce a special sound, especially when playing guitars. It has been seen that the rate of repetition depends on the physiological limitations of the respective player, it cannot be increased again in other words. The striking of several strings exactly at the same time is also not possible. It is accordingly not possible to cause strings to sound simultaneously when they participate in a multiple sound.

The task of the invention is therefore to create a plectrum of the type stated at the beginning of this document that avoids this disadvantage. A plectrum is proposed  
5 as a solution for this task that has the features mentioned in claim 1. It is distinguished by the fact that it has at least two striking edges for striking several strings at the same time and/or striking one or several strings at the same time. This would accordingly make it possible to increase the rate of striking the strings, expressed as a factor of the manufactured striking edges that is normally limited  
10 by the player's agility. Striking several strings at the same time makes it possible to produce a synchronous multiple sound from the strings involved.

An example of the invention distinguished  
20 by the fact that the plectrum has at least two single plectrums joined by a connection element is preferred. This has the advantage of enabling the fingers to hold the single plectrums individually, so that they are relatively close to each other, at  
25 a distance where they are parallel to each other or where they can be positioned at an angle to each other. The connection element has a stabilising effect in this case and therefore supports the fastening of  
30 the single plectrums in the desired

position.

An additional preferred example is distinguished by the fact that the connection element has flexible properties. This allows for several options for holding it with accordingly different relative lengths of the single plectrums in relation to each other. The flexible properties of the connection element can also be used so that at there is a perceptible resistance when holding the single plectrums: this improves the accuracy of the position of the plectrum in the player's hand.

15 An additional preferred example is distinguished by the fact that the connection element has extremely floppy properties, especially those of a foil, a string, cord, a tube, a textile tape, a wire and /  
20 or an elastic band. It will be possible by using these means for the connection element for mould into the anatomy of the players hand in a similarly way to that of an article of clothing so that is holding the  
25 plectrum becomes more comfortable.

An additional preferred example is distinguished by the fact that the connection element and the minimum of two single plectrums is constructed as one item. The plectrum is made out of one piece in other

words so that manufacturing and assembly costs can be saved. This type of plectrum is also very stabile and long lasting.

- 5 An additional preferred example is distinguished by the fact that the minimum of two single plectrums are from a standard manufacturing series that is commercially available. The Plectrum can therefore be  
10 assembled from a standard manufacturing series that is commercially available- with slight modifications, where necessary. There are no costs of development here.
- 15 There are further advantages to be found in the other sub -claims.

The invention will be described in more detail as follows by referring to drawings.

20 These show:

Figure 1 a plectrum with two single plectrums and a connection element fitted in the middle,

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Figure 2 a plectrum with two single plectrums and a connection element fitted at the side and

30 Figure 3 a plectrum with two single plectrums and a connection element.

Figure 1 shows a plectrum 1 with a first single plectrum 3, a second single plectrum 5 and a lengthened, preferable strip - shaped connection element 7 has two connection elements 9, that are used to connect connection element 7 with the single plectrums 3, 5. The connection medium 9 is located here in the middle of the single plectrum 3, 5. The connection medium 9 is shown here in the example as a pliable adhesive compound in the drilled holes. Two drilled holes are located in the single plectrums 3, 5 for this purpose, which cannot be seen here and which are located behind connection method 9. The drilled holes continue to connection element 7 and filled with the connection medium 9. Rivets, locking elements, screws or any other connection material is possible here. Instead of using connection material 9, that is to say, instead of using an adhesive compound.

Renunciation of the drilled holes and direct connection of connection element 7 with the single plectrums 3, 5 is also conceivable, possible by adhesion or welding.

Besides it is also possible to connect connection element 7 with the single plectrum 3, 5 as a single piece so as to

dispense completely with connection material 9.

5 Connection material 9 can be produced is such a way that a twisting action can also take place along the drilled axis of the drilled holes 3, 5 in the plectrum relative to connection element 7: this increases flexibility in holding the plectrum 1.

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Connection element 7 can have elastic properties at right angles to the length and can also be pliable. The use of a metal strip or a plastic foil is conceivable here  
 15 This would enable plectrum 1 to be held in such a way that the single plectrum 5 can be lie between the thumb and the forefinger with plectrum 3 lying between the forefinger and the middle finger or the right  
 20 hand so that the connection element passes over the upper edge or the lower edge of the forefinger to form a U shaped curve. The single plectrums have to be exchanged when holding with the left hand. The single  
 25 plectrums 3, 5 are more or less parallel to each other. The pliable connection element 7 which can change shape can also lie around the fingertip of the forefinger to help in positioning the single plectrum  
 30 3, 5 between the thumb forefinger and midfinger. A first striking edge 11 and a se-

cond striking edge 13 have to be positioned at the same time that they point outwards when viewed from the curved hand. The striking edges 11, 13 can therefore be deliveredately moved over the striking of the instrument so that these are brought into motion.

The fact that a movement of the thumb causes the single plectrum 5 to change its relative position when held between the forefinger and the thumb is also an advantage. This means that the relative position single plectrums 3, 5 can be changed in relation to each other so that these are no longer parallel to each other. This therefore results in the distance of the striking edges 11, 13 changing: they are varied by a movement of the thumb in other words. This is especially of advantage it two strings are caused to sound at the same time to produce a multiple sound. The distance of the striking edges 11, 13 can therefore be precisely adapted to the string height of the respective instrument to enable simultaneous striking of adjacent strings or lose located further apart from each other.

The single plectrums 3, 5 can be at different angles to each other and to the play-



ing direction, because of the alterable position. Differing sounds results accordingly: this has the effect of producing certain rhythmical patterns such as an emphasis on the first beat or facilitates the playing of fugues and the creation of tension for the listener. A softer sound can be produced by one of the single plectrums 3, 5 for example and a harder sound with the other. It also possible to use the single plectrums 3, 5 to strike the strings respectively from the other side which then provides precise 4/4 time on two strings. The strings can therefore be plucked from below with one of the single plectrums 3, 5 and from the top with the other one when playing the guitar. Finally one of the single plectrums 3, 5 can also be used for creating a precise beat and the other can be used for producing a cluster of sound.

It must also be recognized that the example described here is essentially moved parallel to the playing direction relative to the longitudinal axis when plectrum 1 is used to play with a curved connection element 7. Playing direction is understood to be a plane that is mainly parallel to the strings of a musical instrument. Connection element 7 can be have a pliable st-

ructure in the longitudinal direction.

Figure 2 shows a plectrum 1 with single  
plectrums 3, 5 and a connection element  
5 7' fitted at the side, so that reference  
is made to the previous figure as far as  
this is concerned.

Compared to the previous example, the con-  
10 nection material 9 of a connection element  
7' is fitted to the side of a single plec-  
trum 3, 5. Connection element 7' is also  
pliable so that plectrum 1 can be held in  
a similar way to the previously described  
15 example. However, the fact that the conn-  
ection material 9 is located on the side  
leads to a changed holding position of the  
single plectrums of plectrum 1 so this can  
be positioned in the fingers closer to the  
20 wrist. Plectrum 1 can accordingly be posi-  
tioned differently in the hand according to  
the respective habits of the person playi-  
ng plectrum 1 because of the differing po-  
sitioning of connection material 9 and be-  
25 cause of the length of connection element  
7'. Connection element 7' in this example  
is also has a pliable construction when  
viewed longitudinally and has extremely f-  
loppy properties. Plectrum 1 and therefore  
30 the single plectrum 3, 5 can be positioned  
more towards the wrist by slightly stretc-

hing the connection element 7'. This allows for even more variability and adaptation when holding plectrum 1. The extremely floppy properties of connection element 7' enable it to be adapted to the shape of the tip of the forefinger which increases comfort in holding plectrum 1. Various options are shown in a dotted form for positioning connection material 9 of connection element 7' on plectrum 1, which allow for even more advantageous adaptation of the form of plectrum 1 to the respective player and/or the playing style.

Connection element 7' can be shaped in various ways, it can have a non-skid surface, be provided with notches and/or have captive perceptible elements. Plectrum 1 lies more securely in the hand when playing because of a non-skid surface and can be better moved for this reason. Various types of notches (rounded or saw tooth shaped) which can be located symmetrically or asymmetrically on the long edge or on both long edges of connection element 7' can fabually influence the elasticity and the ability to change shape so that it adapts better to the contours of the fingers when plectrum 1 is being held. The notches can be felt when holding and playing the plectrum, this acts as a positive sup-

port when striking the strings in a controlled manner. It is also conceivable that connection element 7' can be produced in a curved, convex or concave manner so that  
 5 that it is different from a rectangular shape in the are of one or both long edges this would also add to better ergonomics plectrum 1.

10 Figure 3 shows plectrum 1 with two single plectrums 3, 5 and a connection element 7''. The same parts are provided with the same reference lettering so that attention is drawn to the previous figures as far as  
 15 this is concerned.

The connection materials 9' of plectrum 1 in this example are fitted to striking edges 11, 13 on the opposite side of indi-  
 20 vidual plectrum 3, 5 . Connection material 9' of the single plectrums 3, 5 has drilled holes 15, through which connection element 7'' is fitted. Connection element 7'' is ring shaped and can consist of string,  
 25 cord, tube, textile tape, wire and/or elastic band. The use of commercially obtainable plectrums for plectrums 3, 5 is there for conceivable and then privude them with drilled holes 15 so that they  
 30 can be connected by threading through the connection material 7''. The ring of conn-

ection element 7'' only needs to be closed afterwards: this can be done by using any kind of connection, by using a knot for example.

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Plectrum 1 is held in a similar way to the examples already described above with the difference that connection element 7'' does not lie on the tip of the forefinger but on the inside surface of the finger. The opportunity for the player to influence the distance of striking edges 11, 13 by moving the thumb comes into effect here especially when a rubber band is used in a similar way as connection element 7'' can also be pulled over the forefinger. The plane of the ring is basically vertical to the playing plane.

20 The connection material of the plectrum hand, if necessary, the related drilled holes can also be freely positioned on the single plectrums and the widest possible variety of connection material can be combined with the widest possible range of connection elements and position of the connection material. Punched holes in the form of slots or any preferred shape of removed material which encroaches into the connection material can be provided instead of drilled holes. This can provide bet-

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ter protection against the connection material becoming twisted relative to the single plectrums so that stability of the plectrum is generally increased.

5 Differing connection elements produce differing sensory feedbacks for the player. The connection material can be selected to adapt the plectrums to the individual preferences of the player and to the various

10 pieces and styles of music. The shape of the plectrum and therefore the shape of the single plectrums can also be freely varied. Differing shapes of single plectrums can also be combined

15 with each other. The only important consideration here is that the plectrum has more than one striking edge and/or that the player can vary the relative spatial relationship of these striking edges

20 relative to edge other. The coupling of more than two single plectrums by using the connection elements described here is also possible so that more than two strings can be easily struck.